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IN THE CLAIMS:

1. (currently amended)   A method for executing a common task in a clustered computing environment comprising a plurality of computers interconnected to collaborate on said common task, said plurality of computers including at least a client computer and a shared storage medium storing data elements, retrieving data elements from a shared medium by a client computer, said shared storage medium maintaining a main list of data version information associated with said data elements, said method comprising:

said client computer maintaining a locally-stored list containing previously retrieved data elements associated with their data version;

said client computer reading from said locally-stored list data version associated with said data element and sending a request over a data network including said data version to said shared medium;

if said data version received from said client computer does not match said main list data version associated with said data element, said shared storage medium sending to said client computer a new copy of said data element and a new data version, said client computer updating said locally-stored list with said new copy of said data element and said new data version;

if said data version received from said client computer matches said main list data version associated with said data element, said shared storage medium sending to said client computer confirmation that said locally-stored data element associated with said data version is valid;

at least one of said plurality of computers modifying said data element stored on said shared storage medium and said client computer using said retrieved data element to execute said common task;
whereby transfer of copies of data elements between said shared storage medium and said client plurality of computers is reduced and an amount of network load needed to retrieve data elements from said shared storage medium is reduced.

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2. (original)   The method as claimed in claim 1, wherein said client sending said data version to said shared medium comprises sending a null-value data version in the case in which said data element is not stored in said client memory and said shared medium replying to said client with a copy of said data element and data version.

3. (original)   The method as claimed in claim 1, wherein said request for said data element contains an address range defining said data element on said shared medium.

4. (original)   The method as claimed in claim 3, wherein said address range comprises non-contiguous storage blocks.

5. (original)   The method as claimed in claim 1, wherein said client computer communicates with said shared medium through a network block device driver.

6. (original)   The method as claimed in claim 1, wherein said shared medium is a server memory storage space.

7. (original)   A method for maintaining a main list of data version information associated with data elements on a shared medium, said data version information being used for data retrieval, comprising:

creating a list of data structures identifying data elements on said shared medium and said data version information;

receiving a request on a data network for writing at least one of said data elements;

following modification to said at least one of said data elements, giving a new data version to said at least one of said data elements that was modified.

8. (original)   The method as claimed in claim 7, wherein if said data elements being modified are associated with multiple separate data structures containing data version

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information, creating a new single data structure in said list associated with said data elements modified and removing said multiple separate data structures from said list.

9. (original)   The method as claimed in claim 7, wherein said initial version state is an initial version number and wherein said initial version number is incremented to obtain said new version state.

10. (original) The method as claimed in claim 7, wherein said list of data structures is a double linked binary tree list.

11. (new)   A method for managing data version information associated with data elements on a shared storage medium in a clustered computing environment, said data version information being used for data retrieval by a plurality of computers interconnected in said clustered computing environment, comprising:

creating a list of data structures identifying data elements on said shared storage medium and said data version information;

receiving a request on a data network from at least one of said plurality of computers for writing at least one of said data elements;

following modification to said at least one of said data elements, giving a new data version to said at least one of said data elements that was modified.

12. (new)   The method as claimed in claim 11, wherein if said data elements being modified are associated with multiple separate data structures containing data version information, creating a new single data structure in said list associated with said data elements modified and removing said multiple separate data structures from said list.

13. (new)   The method as claimed in claim 11, wherein said initial version state is an initial version number and wherein said initial version number is incremented to obtain said new version state.

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14. (new)   The method as claimed in claim 11, wherein said list of data structures is a double linked binary tree list.